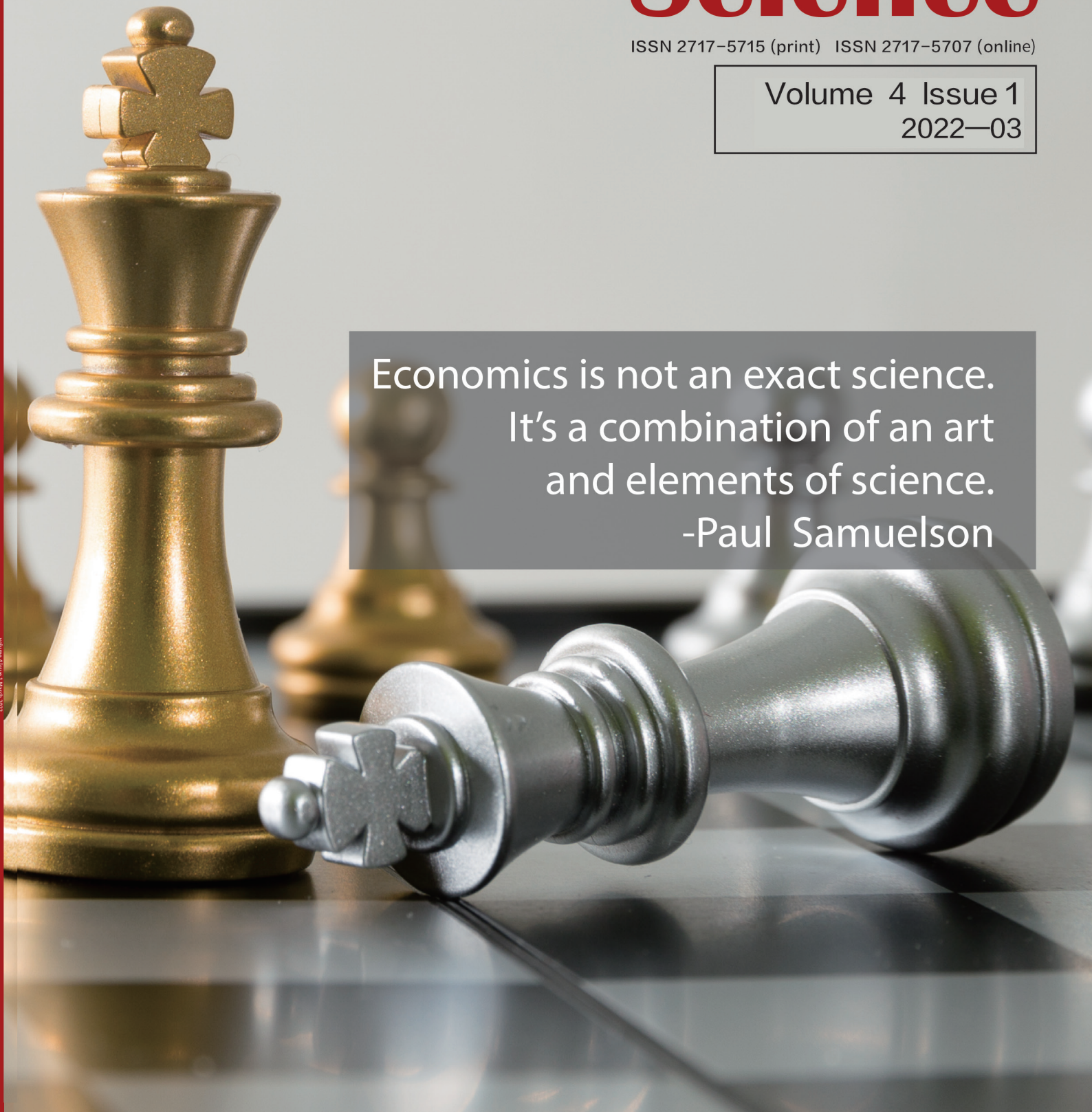


Economics & Management Science

ISSN 2717-5715 (print) ISSN 2717-5707 (online)

Volume 4 Issue 1
2022-03

Economics is not an exact science.
It's a combination of an art
and elements of science.
-Paul Samuelson



Editorial board

Editor-in-chief

Ricardo G Barcelona Asian Institute of Management

Associate editor

Kevin MacG. Adams University of Maryland Global Campus

Editorial board member

Javier Fco Raposo Universidad Politécnica de Madrid.
Ted Azarmi Heilbronn university, Campus Am Europaplatz
Dong-Yop Auburn University at Montgomery
Mohamed Yasser BOUNNITE Al Barid Bank S.A Siège
Faris HAMZA Economics and Management Sciences Department, Faculty of Economics and Social Sciences, Abdelmalek Essaadi University
Hrabrin Bachev Institute of Agricultural Economics, Sofia
Daniel Joseph ONOGWU Ekiti State University, Ekiti, Nigeria
Qi Wang Beijing AT&M Biomaterials CO., LTD

| Volume 4 | Issue 1 | March 2022 |

Economics and Management Science

Encyclopaedic Publishing Pte. Ltd. ISSN 2717-5715 (print) ISSN 2717-5707 (online)

Journal introduction and manuscript scope:

The *Economics and Management Science* is a peer-reviewed, international open access academic journal for global distribution, covering macroeconomics, industry trends, regional economies, modern enterprise management and practice, finance and taxation, financial securities, etc. It presents the research results of major practical problems in the development of economics, and it creates an academic discussion atmosphere in the field of social science research that is brave to explore, dare to break through, boldly publish scientific insights, and be good at contending issues. Seniors from various academic circles, business circles, governments, and research institutions are welcome to interpret the current policy, elaborate economic management theory, disseminate advanced ideas, and deeply explore and summarize the economic management practices.

This journal sincerely welcomes and accepts insights and discussions from global economists and experts, and extensively absorbs various original academic research papers, case and technical reports, and review papers, etc., and opens (but is not limited to) the following columns:

Economic perspective	Hot topic insight	Macroeconomics
Comparison and reference	Industrial economy	Management insight
Regional economy	Market and resources	Finance
Labor economy	Business management	Business economy
Economic vision	Financial report	Economics forum

| Volume 4 | Issue 1 | March 2022 |

Economics and Management Science



CONTENTS

- 1 Several Key Issues that Need to be Addressed Urgently in Gansu Province’s Successful Realization of the “Dual Carbon” Goal**
Guofeng Zhao
- 7 Research and Analysis on Marketing Strategy of Domestic Fast Food Industry from the Perspective of New Media Marketing**
Binyang Zhang
- 11 Research on Performance Appraisal of Finance in Business Administration**
Jia Liu
- 14 Discussion on the Intensive Construction of Double Assay Supervision in Coal Power Enterprises**
Haiheng Wang Xiaodong Qin Jinwu Sun
- 17 Analysis of the Influence Factors of University Ecological Supermarket Construction under the Multi-log Multiple Regression Model**
Yang Ge
- 24 Influence of RCEP Signing on China’s Cross-border E-commerce and Countermeasures**
Rong Zhao

Copyright

Economics and Management Science is licensed under a Creative Commons-Non-Commercial 4.0 International Copyright (CC BY-NC4.0). Readers shall have the right to copy and distribute articles in this journal in any form in any medium, and may also modify, convert or create on the basis of articles. In sharing and using articles in this journal, the user must indicate the author and source, and mark the changes made in articles. Copyright © Encyclopaedic Publishing Pte. Ltd. All Rights Reserved.

Several Key Issues that Need to be Addressed Urgently in Gansu Province's Successful Realization of the "Dual Carbon" Goal

Guofeng Zhao

Zhangye Municipal Party School (Zhangye Administration College), Zhangye, Gansu, 734000, China

Abstract: Gansu is an important energy base in China and an important ecological security barrier in Western China. It has significant advantages in resources, location and channel, and has the favorable conditions of base, scale and integrated development, which is the key for the province to promote the green and low-carbon transformation of energy, achieve the goal of "dual carbon" on schedule and cultivate new economic pillar industries. The proposal of China's "dual carbon" goal in the new era has important strategic significance for the province to serve and integrate into the new development pattern, seize a new round of scientific and technological revolution, and promote the "green rise" of the economy. In order to seize new opportunities and promote the smooth realization of the "dual carbon" goal, Gansu Province should deal with the following issues.

Keywords: Dual carbon; Green development; New energy; Gansu province

DOI: 10.12346/ems.v4i1.6935

Author Introduction: Guofeng Zhao (1993, 06), male, Gansu, Han nationality, postgraduate, master, no title, main research directions: carbon peaking, carbon neutrality, industrial economy, political economy, etc.

1. Preface

On September 22, 2020, at the General Debate of the 75th Session United Nations General Assembly, President Xi Jinping solemnly announced to the world that China "strive to reach the peak of carbon dioxide emissions by 2030 and strive to achieve carbon neutrality by 2060". This goal will realize China's revolution in the energy field, which will not only reshape China's energy structure, but also have a positive impact on the economy, bringing digital transformation and intelligent applications.

2. Make Full Use of Abundant Clean Energy and Seize Development Opportunities

To achieve carbon neutrality in China is to build a cleaner, safer and more efficient energy structure. In the long run, carbon neutrality will accomplish the strategic goal of energy revolution proposed in the Beautiful China Ruling Idea. According to the forecast of future development, if non-fossil energy-based electricity will become the main energy source in primary energy resources, and the electrification rate in energy consumption will reach 100%, hydrogen energy in secondary energy resources can reach 30%, net-zero emissions will eventually be

achieved.

China has long advocated energy conservation and energy security, but China's energy structure is "rich in coal, lacking in oil and gas", so oil and gas resources are relatively scarce. Energy security has always been a major issue that needs to be considered in China's development. If the large-scale application of renewable energy is realized to cross the era of oil and gas energy, it is expected to improve our country's energy independence, change the structure of energy production and distribution, and ultimately make energy consumption no longer restricted, and comprehensively improve social and economic development capabilities and people's living level ^[1].

As shown in Figure 1, the distribution of solar energy resources in China is mainly concentrated in the northern and western regions. There are mainly three regions with abundant wind energy resources. The first region is the "Southeast Coastal Area", China has a long continental coastline, with a length of over 18,000 kilometers. The second region is the "Northeast and Northwest Region", Liaoning, Jilin and the western part of Heilongjiang in northeast China, as well as the whole territory of Inner Mongolia in northwest China, plus the eastern part of Xinjiang, which are the regions with the most abundant

wind energy resources in our country. The third region is the “northwest Qinghai-Tibet Region”. Considering that photovoltaics in the western desert area has a characteristic of attenuation effect slowing down due to less water vapor, this shows a certain ecological efficiency in practice, if the desert Gobi, which occupies 9% of the country’s land area, is fully utilized, it can support 20,000 GW installed capacity of newly added photovoltaic power generation. By the end of 2021, China has built 306 million kilowatts of solar power generation installed capacity and 328 million kilowatts of wind power generation installed capacity, and about 100 million kilowatts of photovoltaic power generation capacity is currently under construction in desert areas. According to the current plan, only in the desert Gobi area, a new generation installed capacity of 450 million kilowatts of wind power and photovoltaic power will be built. Our current goal is to increase the total installed capacity of wind power and photovoltaic power generation in our country to at least 1.2 billion kilowatts by 2030, so that to make the proportion of clean electric energy in China’ power generation mode larger than at present, and contribute strength and value to China’s sustainable economic development, the construction of a good natural environment, and the goals of carbon neutrality and carbon emission reduction.

Standing in front of the overall strategic situation of the whole country, Gansu is right in the gathering area of light and wind energy, both of which are rich, and it is one of the regions with the best basic conditions for developing new energy in China. The Gansu Provincial Government seized the opportunity and pointed out in Gansu Province’s 14th Five-Year Plan and the Outline of

2035 Long-Range Objectives that new energy should be vigorously developed. Adhere to the combination of centralized and distributed power generation, and the combination of power transmission and on-site consumption; Strive to increase the supply of non-fossil energy such as wind power, photovoltaic power generation, solar thermal power generation, and pumped storage power generation; Then form an integrated and coordinated development pattern of wind, light, water, fire and storage. However, in the specific implementation, it is necessary to strengthen the understanding of the following issues:

2.1 Stick to the Overall Situation of Development and Prevent the Emergence of Sectionalism

Wind and solar power generation has been developing for 40 years, and it is indeed developing very well, but China’s wind and solar power generation so far is equivalent to 192 million tons of standard coal power generation, while China’s total power generation needs 2.2 billion tons of standard coal. In this case, there has also been problems of abandoning solar energy or wind energy. Why does abandoning solar energy and wind energy occur? Because wind energy and solar energy are unstable energy sources, when some power grids have 15% of unstable energy sources, the power supply pressure will be relatively large, which may cause large-scale power outages. At the technical level, the stability of wind energy and solar energy has many limitations compared to thermal power generation. How can we realize energy storage to ensure the stability of this energy supply? This technical problem needs to be solved. In the process of local development, they will definitely face such problems, actively solve them, and do a good job in

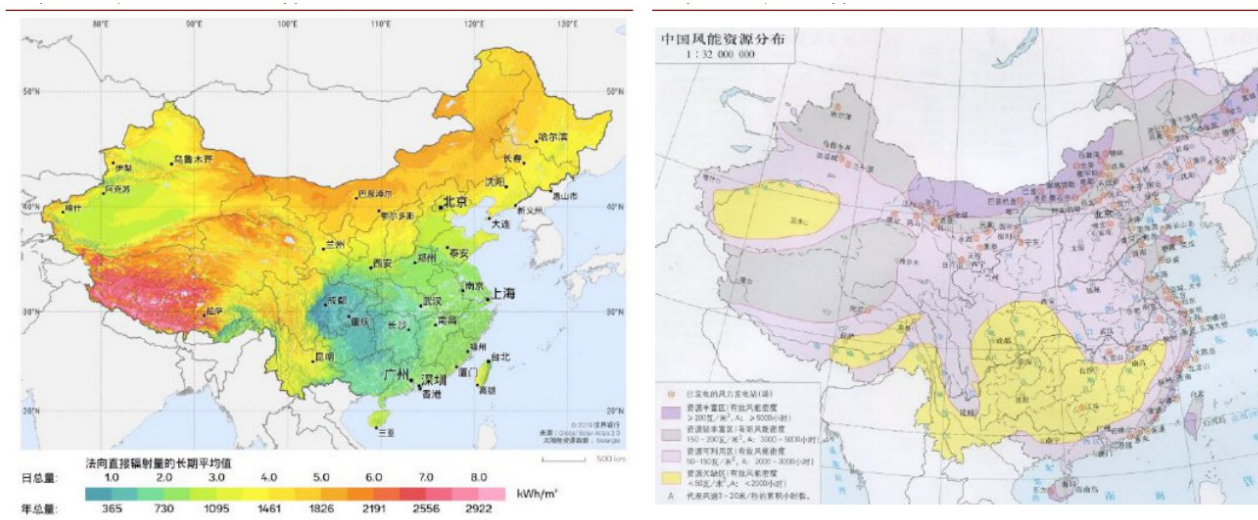


Figure 1. Distribution of solar energy and wind energy in China

supervision is an important guarantee for the realization of transformation. In the era of new energy development, Gansu Province has an important opportunity to achieve transcendence. It is necessary to guarantee strong supervision, and prevent local governments from considering short-term GDP growth or lack of innovation ability and other factors that lead to the problem of abandoning solar energy and abandoning wind energy [2].

2.2 Improve Innovation Ability and Solve Electricity Storage Problems

Since the invention of lead-acid batteries in 1858, human beings have invested a lot of money and energy in research and development in more than 100 years. Our entire energy storage capacity has increased from 90 kWh per cubic meter of lead-acid batteries to Tesla's 260 kWh per cubic meter nowadays, but we saw that more than 20 years after the invention of the lead-acid battery, the internal combustion engine was invented. The gasoline is 8600, and the diesel is 9600. Therefore, the orientation of our policy in the future is one aspect, and there is a market orientation in the other aspect. To promote the realization of our goals, these technical difficulties are the first to be broken through. Gansu is rich in wind and light resources, if it strengthens innovative research and development and solves practical problems through provincial and international cooperation, this will be of great significance for the future leap-forward development.

3. To Achieve High-quality Development, Talent Reserve is the Key

The realization of China's "dual carbon goals" is inseparable from the green transformation of economic and social development and the adjustment of industrial structure. Technological innovation is an important support for industrial structure adjustment and high-quality economic development, which requires the cultivation of a large number of relevant talents. China has a tight schedule and a heavy task to achieve the "peak carbon dioxide emissions and carbon neutrality", talents play a vital role in the realization of the "dual carbon" goal. Implementing the "dual carbon" goal requires cultivating high-quality talents, and requires in-depth integration of "developing science and technology as the primary productive force, cultivating talents as the primary resource, and enhancing innovation as the primary driving power", promotes carbon neutrality and domestic and foreign cooperation and exchange activities, develops domestic and foreign cooperation and exchange activities, and researches on cooperation strategies to jointly build a green "Belt and

Road", and cultivate compound, professional and innovative talents.

However, from 2010 to 2020, Gansu lost nearly 555,400 people due to negative population growth. From 2020 to 2021, Gansu's population decreased by 110,000 people, which was twice the average of the previous 10 years, as shown in Figure 1. Before the outbreak of the epidemic, the ranks of Gansu college students developing to the southeast of China are becoming larger and larger. According to statistics, more than 60% of the fresh graduates from Lanzhou Jiaotong University, Lanzhou University of Finance and Economics and other colleges and universities hopes to work in the southeastern coastal cities, while only 40% of college students studying in other provinces and cities from Gansu province can return to their hometown.



Figure 2. The census of Gansu Province

Therefore, considering the future development of Gansu, we should pay more attention to the construction of talents:

1) Relying on the universities in Gansu, accelerate the innovation and cooperation with domestic and international universities, and strengthen the training of innovative talents in emission reduction, especially the cultivation of related professionals in energy storage and hydrogen energy, reserve talents for achieving Gansu's net emission reduction target.

2) Resolutely implement the talent introduction policy, formulate and update the talent introduction policy at different levels, benchmark Hangzhou, Shanghai, Chengdu and other places, focus on ensuring the living and working environment of the introduced talents in Gansu, and improve the financial support for the introduction of talents, especially the housing and treatment issues, so as to solve the problem of talent retention in innovative development [3].

4. Strengthen the Construction of Green Infrastructure and be at the Forefront of Green Development

With the proposed carbon neutrality goal, the direction of China's future energy transition development has been

very determined. From the supply-side, carbon emission reduction is equivalent to another supply-side reform. The opportunity for new energy investment lies not only in the growth of traditional manufacturing, but also in the birth of new business models or new technology application opportunities; From the demand side, the carbon neutrality goal is expected to bring about the rise of new markets, and force the green transformation of the industrial chain by changing the way of consumption. Gansu is rich in new energy resources and plays an important role in the future transformation and development. Only by seizing opportunities for green development can we be at the forefront of development.

4.1 Make Good Use of Resource Advantages and Develop Green Buildings

In 2021, China released the “Implementation Plan for Promoting Green Consumption” to force the green transformation of the industrial chain by changing the way of consumption. Many future green and low-carbon implementation projects have been proposed, such as the green building model, accelerating the development of green construction, and promoting the scale development of green buildings and low-carbon buildings, and incorporating energy-saving and environmental protection requirements into the renovation of old communities. In the future, under the high proportion of renewable energy structure, new building power distribution and consumption should have four new technologies — light, storage, direct, flexible. Among them, “light” and “storage” refer to distributed photovoltaics and distributed energy storage, which will be increasingly used in building scenarios, as an important part of building power distribution and consumption systems; “direct” refers to the change in the form of building distribution network, from traditional AC distribution network to low-voltage DC distribution network; “flexible” means that building electrical equipment should have the ability to be interrupted and adjustable, so that building electricity demand changes from rigid to flexible. Gansu must keep up with policies, be at the forefront of development, deploy as soon as possible, and incorporate the concept of green development into the renovation of old communities, the development of new buildings and new environmentally friendly building materials, seize the opportunity to achieve the goal of net emission reduction and improve green competitiveness.

4.2 Vigorously Develop New Energy Transportation Tools

General Secretary Xi Jinping pointed out: “The development of new energy vehicles is the only way for our country to move from a big automobile country to a

powerful automobile country”. The “Thirteenth Five-Year Plan” period is the five years of the great development of China’s new energy vehicle industry, and indicators such as output, sales, holdings and the number of charging piles have ranked first in the world. China has established a complete industrial system, mastered core technologies such as batteries, motors, and electronic controls, and has significant competitive advantages in terms of market scale, whole vehicle manufacturing, industrial support, industrial policies, and infrastructure construction, China has become a leader in the global new energy automobile industry. By replacing existing fuel vehicles with electric vehicles, clean traffic will be realized, which will reduce the carbon emissions caused by gasoline and diesel combustion during traffic travel. According to the State Council’s “New Energy Vehicle Industry Development Plan (2021-2035)”, in 2025, our country’s new energy vehicles will account for 20% of new car sales, and by 2030 and 2035, this proportion will further increase to 40% and 50%. Now the world’s new energy vehicle companies, including Mercedes-Benz, BMW, BYD, etc., have announced that they will stop the production of fuel vehicles at a certain point in the future. Most of the domestic car companies in China will stop selling fuel vehicles in 2025. Most of the companies will be after 2030^[4].

In July 2022, at the 28th China Lanzhou Investment and Trade Fair, electric buses that “Made in Lanzhou” successfully entered the German market, becoming the single largest order for domestic electric buses to be exported to Germany. Gansu must seize the opportunity to improve the new energy vehicle industry chain in Gansu Province, and make it an international industrial highland for the research and development, manufacturing and export of new energy vehicles.

In Gansu Province, 100% of buses are to be electrified, and only some private cars are fuel vehicles. In order to speed up the cleanliness of transportation, Gansu Province should vigorously promote the construction of charging facilities in public parking lots, develop the integrated construction of light charging and storage charging, introduce preferential policies for electric vehicles, and encourage park residents to buy electric vehicles and retire fuel vehicles. In 2025, the number of fuel vehicles will be reduced to 60% of the existing number; in 2030, the number of fuel vehicles will be reduced to 15% of the existing number, and by 2045, the transportation in the park will be clean and 100% clean energy vehicles will be realized. In this process, policy support and technological innovation should be strengthened to ensure that specific

goals are completed at specific time points.

By developing green buildings, formulating energy efficiency management measures and vigorously developing green transportation and other measures, Gansu will be able to realize the transformation of resource advantages + innovative development in the process of implementing the “dual carbon” goal, and profoundly change the present situation of Gansu’s economic development.

5. Pay More Attention to Ecological Security Construction and Realize Carbon Sink Benefits

Gansu is located in the inland of the motherland and belongs to the three major river basins of the Yangtze River, the Yellow River and the Inland River. It undertakes important ecological functions such as water supply, water conservation of major rivers, windbreak and sand fixation, and biodiversity protection in the country. Gansu is an important ecological security barrier in western China. Rich ecological landforms and natural resources give Gansu more possibilities to achieve carbon neutrality. Among them, relying on the existing achievements in ecological protection of the Qilian Mountain, as well as through afforestation, vegetation restoration and other measures, absorb carbon dioxide in the atmosphere, thereby reducing the concentration of greenhouse gases in the atmosphere, creating a carbon sink system, and becoming important means to achieve the goal of carbon neutrality. For the carbon sink system, Gansu needs to start from three aspects: forest carbon sink, grassland carbon sink and water carbon sink.

1) Forest carbon sink refers to the process in which forest plants absorb and fix carbon dioxide in the atmosphere into vegetation and soil through photosynthesis, thereby reducing the concentration of carbon dioxide in the atmosphere. Forestry industry carbon sink refers to using the carbon storage function of forests to absorb and fix carbon dioxide in the atmosphere through activities such as afforestation, strengthening forest management, reducing deforestation, protecting and restoring forest vegetation.

2) The grassland carbon sink mainly refers to fixing the absorbed carbon dioxide in the underground soil. The carbon sequestration ratio of plants is relatively small, accounting for only about 10%. The carbon sequestration ability of perennial herbs is stronger. With the implementation of the project of returning farmland to forest and grassland in China, especially the increment of carbon sequestration in degraded grassland is more obvious, so it can give full play to the role of carbon sequestration in grassland.

3) Water carbon sink is the process and mechanism of taking rivers and lakes as a specific carrier to absorb carbon dioxide from the atmosphere and solidify it. More than half of the biological carbon and green carbon on earth is captured by aquatic organisms (plankton, bacteria, seagrass, salt marsh plants and mangroves), and wetlands (such as Zhangye’s wetlands), lakes etc. in Gansu, can increase carbon sink by planting submerged plants and water-rich plants.

6. The Gansu Provincial Government Should Strengthen Multi-party Cooperation and Do a Good Job in Publicity and Guidance

Gansu province should publicize the application of various low-carbon energy-saving technologies and ways of production and living organization from time to time through various media organizations, to build a green, low-carbon and beautiful low-carbon development model in Gansu. At the same time, through the opening of columns, award-winning essays, etc., timely publicize the task deployment of low-carbon development programs by the nation, Gansu Province, local cities and states, etc., and give all kinds of subjects the right to suggest the development of low-carbon life; hold high-level domestic and international forums on low-carbon development and new power systems, strengthen international exchanges and cooperation, advocate the concept of energy transformation and green development, fully implement the concept of sustainable development, further promote sustainable management, support the integration of the national dual-carbon strategy into the global discourse system; Strive to form an international guide to demonstrate and promote green development in underdeveloped areas in northwest China; Strengthen information disclosure and external publicity, actively conduct discussions and exchanges with similar regions, industry enterprises, and scientific research institutes, exchange knowledge, brainstorm ideas, and gather a strong synergy to promote low-carbon development.

6.1 Establish the Concept of Green and Low-carbon Consumption Life

Regularly carry out green life creation activities, advocate a simple, moderate, green and low-carbon production and lifestyle, and cultivate green, healthy and safe consumption habits; Adhere to updating the concept, laying a solid foundation, advocating saving priority and green consumption, strengthen the concept of green lifestyle for the whole people year by year; Gradually establish an encouragement and guidance system for green lifestyle,

and continuously enhancing the public's internal motivation to practice green life; Build a fast and convenient social green product service system, promote the public to develop the habit of green lifestyle. Finally realize the transformation of the whole society's lifestyle and consumption pattern to the direction of diligence, thrift, green and low carbon, civilization and health; and form a new social trend of advocating ecological civilization for everyone, everything and all the time. Through various guiding measures, improve the environmental awareness and green consumption knowledge level of the whole people, publicize and implement the concept of green ecology in the details of life, and enhance the green consumption awareness of the whole society^[5].

6.2 Build a Green, Low-carbon and Circular Development System

Advocate the concept of green, low-carbon and circular development, give full play to resource advantages and geographical advantages, do a good job in adjusting the pattern of interests, optimize the industrial organization structure, improve the concentration of high-tech industries, and form a development pattern of "each with its own characteristics, resource sharing, industrial integration, mutual benefit and win-win". Introduce incentive policies to support waste heat recovery and cascade utilization of industrial water in the industrial field, encourage the application of recycling low-carbon technologies such as rainwater collection and natural light gathering lighting in the field of low-carbon buildings, open up the recycling industry, insist on the garbage classification, and efficient-

ly implement waste recycling.

Assist enterprises to carry out foreign cooperation, build a green supply chain, encourage enterprises to carry out green design, select green materials, implement green procurement, create green manufacturing processes, implement green packaging, carry out green transportation, and do a good job in recycling waste products, so as to realize green environmental protection in the whole product cycle. It is necessary to increase fiscal and taxation support, vigorously develop green finance, develop green credit and green direct financing, develop green insurance, give play to the role of the insurance rate adjustment mechanism, and support qualified green industry enterprises for listing and financing.

References

- [1] Fan, Y.X., Wei, F., 2022. Contributions of Natural Carbon Sink Capacity and Carbon Neutrality in the Context of Net-Zero Carbon Cities: A Case Study of Hangzhou. *Sustainability*. 14(5).
- [2] Seto Karen, C., Churkina, G., Hsu, A., et al., 2021. From Low- to Net-Zero Carbon Cities: The Next Global Agenda. *Annual Review of Environment and Resources*. 46.
- [3] Francesco, F.N., Adriaan, S., Rebecka, E.E., et al., 2019. A Research and Innovation Agenda for Zero-Emission European Cities. *Sustainability*. 11(6).
- [4] Xu, M.M., Lin, B.Q., 2022. Towards low-carbon economy by carbon label?: Survey evidence from first-tier cities in China. *Environmental Impact Assessment Review*. 97.
- [5] Zhang, J.N., Lyu, Y.W., Li, Y.T., et al., 2022. Digital economy: An innovation driving factor for low-carbon development. *Environmental Impact Assessment Review*. 96.

Research and Analysis on Marketing Strategy of Domestic Fast Food Industry from the Perspective of New Media Marketing

Binyang Zhang

Meituan, Shanghai, 200003, China

Abstract: Under the background of new media, the catering industry in China is facing new challenges and opportunities with the integration of new and old media. Domestic fast food chain enterprises have changed its previous single marketing mode in time and actively integrated into the new marketing environment. From the perspective of new media marketing, this paper analyzes the marketing strategies of many successful enterprises in recent years, and summarizes the marketing strategies of domestic fast food chain enterprises under the new media environment.

Keywords: Integration of new and old media; Domestic fast food chain enterprises; New media environment; Marketing strategies

DOI: 10.12346/ems.v4i1.6936

Author Introduction: Binyang Zhang, male, OTJ postgraduate from Renmin University of China, research direction: public relations and marketing management.

1. Current Situation of New Media Marketing Environment in Catering Industry

1.1 Consumer Analysis

(1) Interactivity

The new media marketing makes the marketing mode of enterprise management turn to B2C and C2C. As the marketing channels of enterprises continue to expand, the relationship between enterprises and consumers has become closer and closer. With the continuous integration of new media and communication media, the active, open and interactive online discourse field, coupled with instant, fragmented, zero distance, self consistent connectivity and seamless coverage, the information ecology gives consumers more and more independent space to make choices, choices, and expressions of source information for secondary processing and analysis. Compared with e-commerce that focuses on sales, the most typical and representative comment interactive platform in the catering industry has become the main complaint channel for consumers to obtain relevant information. Consumers maximize information interaction through various tests and reviews in the form of text, pictures or videos^[1].

(2) Personalized and emotional consumption

The target group of the domestic fast food industry is positioned at the post-95-00 age. This young consumer group pursues a better service experience and a more

fashionable “quality”. For example, in recent years, the one-man food economy has become very popular among young people. Modern young people pursue fast-paced, pressure-relieving, and other emotional consumption. The one-man food hot pot has caught the young people’s concept of life and quickly became popular nationwide. Based on the above situation, the era of purely considering the objective factors such as geographical location, good quality and low price has ended. For the selection of “beauty system” such as service, decoration, technology, atmosphere, food packaging, and even color matching, background music in the catering scene, high-quality, meticulous and comprehensive catering services have become the key factor in fast food management.

1.2 Differentiation Characteristics of the Market

Large scale population mobility, coupled with the impact of foreign “foreign catering”, the original inherent catering boundaries have been broken, the mix of taste and taste, the integration of customs and style, many traditional catering enterprises, high star hotels, such as the catering brand “Xiang’eqing” cross-border environmental protection, film and television, technology industries. The performance of Quanjude, a century old store, declined. On the one hand, it introduced a market-oriented operation mechanism through strategic investors, and on the other hand, it was revitalized by a series of measures

such as reforming stores and developing food business; More high-end food enterprises “bow down” to attract customers with such strange moves as sellers’ regular meals, beef noodles, tea eggs, zongzi, and roof vegetable planting, and the high-end market share gradually shrinks. The unlimited opportunities created by “Internet+” have made many catering enterprises move towards the direction of “popularization” and “intelligence”. The catering industry marketing under the new media form has entered an interactive era in which the “absolute demand subject” is to comply with, cater to and show off consumers, from “ordering system” to “group purchase shopping”, from “delivery delivery” to “public praise” (favorable and negative comments).

2. Marketing Advantages of Catering Industry under the Background of New Media

2.1 Consumers Have the Initiative to Facilitate the Precise Positioning of Enterprises

In the era of new media, the improvement of information communication technology and the development of the Internet make the two-way communication of information more convenient. Relying on the network, consumers can query the relevant information of enterprises they are interested in at any time, and can also timely feedback their experience and suggestions after the transaction is completed. Therefore, consumers take the initiative in the market. Consumers can put forward their own opinions and suggestions on mass platforms such as Meituan and Eleme, which is conducive to enterprises’ data screening, statistics and analysis, understanding market feedback and changes, and making timely adjustments to marketing strategies such as products, prices, promotion methods and distribution channels. With the development of economy, people’s demand for personalized services and products in the catering industry has increased. Network marketing in the context of new media provides a good platform for targeted services.

2.2 Reduce Intermediate Links, Reduce Costs and Improve Profits

Under the background of new media, most of the marketing activities of Chinese catering industry rely on the Internet. Network marketing realizes the direct contact between businesses and customers. Therefore, information transmission is more convenient and timely. The number of wholesalers has been reduced, and the cost of promotion and other aspects of each enterprise have been greatly reduced. While other influencing factors remain stable, the profit cycle has been shortened, providing a

greater profit space for the catering industry. In addition, the direct communication between the buyer and the seller greatly reduces the communication cost, saves time for the development of the industry, and makes the industry towards sustainable and healthy development.

2.3 Expand Publicity Scope and Enhance Brand Influence

To a large extent, the traditional mode of communication will be limited by the region, and the emergence of new media has greatly improved the problem. Because of the strong coverage of the Internet, the publicity efforts are greater, the coverage is wider, and the publicity effect is better. Enterprises can quickly improve brand awareness and enhance brand influence through online publicity. In the era of old media, if a brand does not have stores in some cities, it is difficult for residents of the city to know the brand. In the context of new media, even if the city where you live does not have a brand store, you can have a preliminary understanding of the brand through the online advertising of the enterprise.

2.4 Data are Easy to Record and Industry Management is Strengthened

For example, consumers’ browsing, feedback and other data in the App can be saved by the platform. Through these data, enterprises can understand the needs and preferences of different types of consumers, and then provide targeted products and services. With the development of information technology, the transaction process between businesses and consumers can also be accurately recorded. On the one hand, it is conducive to the protection of the legitimate rights and interests of consumers and the orderly development of the industry. On the other hand, enterprises can strictly control and strengthen management through data. Different enterprises adjust and solve their own personalized problems in a timely manner, which not only improves brand reputation, but also promotes the healthy development of China’s catering industry ^[2].

3. Marketing Strategy of Domestic Fast Food Enterprises under the New Media Environment

3.1 Combination of Traditional Marketing Strategy and New Media Marketing Strategy

Traditional marketing methods have been very rich. New media marketing has risen rapidly. In addition to the diversified characteristics of new media channels, the fast food industry can combine various marketing strategies to maximize the brand promotion and attract customers. At the same time, it has formed its own marketing style.

Since the two marketing models have their own advantages and disadvantages, in a short time, although they are in a relationship of trade-offs, new media marketing cannot completely replace the traditional marketing model. How to achieve the organic integration between the two has become a difficult and important point in the field of enterprise marketing.

Take HEYTEA as an example. In terms of traditional marketing strategy, HEYTEA still keeps its product strategy, price strategy, channel strategy, promotion strategy to attract customers, among which the most successful is the combination marketing of HEYTEA. The cooperation between IP addresses of different enterprises, that is, combination marketing, can realize the sharing of traffic and resources between enterprises. During the Tanabata Festival in 2019, HEYTEA and Qixi carried out cross-border cooperation and launched the new Tanabata limited edition “salty Caramel seven crisp tube”. The theme of this cooperation is “happy tea * happy Qixi, happy on the 7th”. It has skillfully formed a connection with Tanabata Festival and attracted a large number of customers. HEYTEA conducts portfolio marketing once a month. This cooperation mode has expanded the popularity of HEYTEA and attracted more customers to buy new products^[3].

In terms of new media marketing strategy, HEYTEA released three short video collections on Tiktok, “tea DIY”, “tea hidden menu” and “tea vlog”, as well as a large number of new product recommendation videos and other creative videos. Each video received a large number of fans, and the number of fans for a single video of “Xicha employees’ favorite order strategy” alone reached 484000. Through short videos, HEYTEA showed its production process and creative ordering strategy to customers more vividly, which greatly stimulated consumers’ curiosity. The official account of HEYTEA in Tiktok currently has 526000 fans and has been liked 4.929 million times. It can be seen that the fans of HEYTEA Tiktok platform have strong stickiness, and the influence and communication power of the account are rising. It can be concluded that HEYTEA adopts the strategy of combining the traditional 4P marketing strategy with the new media marketing strategy.

3.2 Break the Simplification of Fast Food and Highlight the Special Labels on Dishes

Chinese fast food is mainly about rice set meal. This product has many shortcomings such as too many products, no characteristics of taste, too strong commonality, too noisy personality, unclear nutrition, and poor product standard.

An important reason for the rapid rise of local chicken in recent years is that the research and development team of the local chicken has constantly pushed through the old and introduced the new, and developed a variety of series of dishes with the core of “chicken”. The main characteristics of the products are “healthy, nutritious, delicious and fast”. As far as products are concerned, all products of local chicken are made of chicken, which immediately brings a very obvious label and highlights the product characteristics. “Feixi Laomu Chicken Soup” focuses on its nutritional value, which is exactly where the competition between Chinese fast food and Western fast food lies.

Therefore, these two characteristics of the product must be emphasized in the marketing process. As far as the product life cycle is concerned, the set meal products have basically entered a mature stage in the Chinese fast food market, and almost every family has fast food. At this stage, enterprises need to expand distribution channels and market coverage to achieve benefit growth, win more potential consumers, and improve the added value of the products. The pastry category is in a growth period, and each enterprise is in an exploration period. The market space is large. At this stage, it is necessary to increase product categories, improve product quality, and reduce prices in time to attract consumers. Soup products are also in an initial growth period. Few fast food restaurants regard soup products as their main products or main profit points. However, in view of the characteristics of local chicken, it is necessary to focus on marketing featured products when the market saturation is not strong and the competition is not fierce. Enter the market quickly to occupy the market, seize the target consumers, so as to stimulate more consumer demand.

3.3 Use New Media Marketing to Build Reputation and Popularity

New media marketing has the following advantages: (1) Consumers have the initiative to facilitate the precise positioning of enterprises; (2) Reduce intermediate links, reduce costs and improve profits; (3) Expand the scope of publicity and enhance brand influence; (4) Data are easy to record and industry management is strengthened^[4].

In recent years, Undersea fishing has chosen online marketing as a major marketing tool. First of all, the official website was established, and the one-way information output was transformed into two-way interactive functions. At the same time, various functions such as querying stores, querying menus, and ordering meals online were added, and enterprise mobile phone software was introduced, which greatly facilitated consumers and re-

alized the conversion of private domain traffic. Undersea fishing has established its own official accounts on various social platforms to fully explore the characteristics of commodities and brands. On this basis, it actively carries out fan interaction and brand marketing activities to connect consumers with brands, improve the communication effectiveness of its own brands, and cultivate customer loyalty. Undersea fishing takes advantage of the fast speed and wide range of short videos to promote the creation of hot topics such as “Undersea fishing’s red pot bottom” and “Undersea fishing’s red dishes”. On Tiktok, Undersea fishing’s video views on this topic have exceeded 6.7 billion, attracting many potential consumers to spend, and greatly improving Undersea fishing’s brand awareness and economic benefits. Undersea fishing has adapted to the marketing and communication laws in the post information age by using the network marketing method, and provided a new path for brand transformation and development in the post information age for brand survival and development.

4. Conclusions

Based on the analysis of 4P marketing theory, the catering industry in China has undergone corresponding changes in products, prices, sales channels and promotion strategies compared with the old media era under the background of new media.

This change is an inevitable trend for the industry to adapt to the social background, and also an inevitable result of the industry’s macro control. Each change has two sides, which exposes disadvantages while giving full play to advantages. This is both an opportunity and a challenge for the development of Chinese catering industry in the new media era. Enterprises need to analyze the new opportunities and challenges they face in order to obtain marketing strategies that conform to the current marketing level in China, so as to promote the sustainable development of the catering industry.

References

- [1] Wang, Sh.Q., 2022. An Analysis of the Marketing Strategy of China’s Catering Industry under the Background of New Media. *Mall Modernization*. (05), 46-48.
DOI: <https://doi.org/10.14013/j.cnki.scxdh.2022.05.005>
- [2] Tian, H., 2021. Status Quo and Development Strategy of Service Marketing of Small and Medium sized Catering Enterprises. *Liaoning Vocational and Technical College of Economics. Journal of Liaoning Economic Management Cadre College*. (05), 19-21.
- [3] Yu, Y.Q., 2020. Research on Marketing Mode Transformation of Chain Catering Enterprises in the New Media Era -- Taking HEYTEA as an Example. *Modern Business*. (30), 8-10.
DOI: <https://doi.org/10.14097/j.cnki.5392/2020.30.003>
- [4] Li, J.X., 2019. Marketing Analysis of the Catering Industry in the New Media Environment. *Technology and Market*. 26(11), 167-170.

Research on Performance Appraisal of Finance in Business Administration

Jia Liu

Beijing Tiandi Runjia Financial Consulting Co., LTD, Beijing, 100048, China

Abstract: With the rapid development of social economy, a variety of enterprises have emerged, and business leaders pay more and more attention in the enterprise business management methods. Business management is more like a macro control of enterprise business strategy. Based on theories of management, economics, accounting and so on, modern management concepts and methods are used to effectively manage and make decisions on enterprise and its strategic development, so as to ensure its healthy, sustainable and stable development. Finance is the equivalent circulation of value and profit realized by enterprises after the integration of existing resources. To some extent, it can be said that finance is the optimal inter-temporal allocation of resources in an uncertain environment. This paper explores ways to improve the efficiency of business management from the perspective of corporate financial performance assessment, in order to promote the healthy development of business management.

Keywords: Business administration; Performance appraisal; Assessment system; Financial

DOI: 10.12346/ems.v4i1.6937

Author Introduction: Liu Jia, 1980.3, female, Han, native of Hebei province, Master degree, Bachelor degree, senior management accountant, international certified public accountant. Research field: enterprise management, private equity fund, investment and financing.

1. Introduction

In order to enhance its market competitiveness and achieve steady and rapid development, the enterprise continues to optimize and reform its internal management mode, and seeks a way to survive through continuous innovation and practice. In the implementation of strategic business management at the same time, in the financial aspects of reasonable and effective performance assessment, is to ensure the normal and even good operation of the enterprise is an important condition. From the current operation and management situation of most enterprises, most of the enterprise management personnel are relatively weak in comprehensive quality, lack of awareness of effective work and responsibility, in the process of business management, can not play the role of a model, to a large extent, hindering the possibility of enterprise development. Therefore, the establishment of an effective performance appraisal system plays a decisive role in the smooth development of management work.

2. Overview of Financial Performance Appraisal in Business Administration

Reality each enterprise in the process of business

management, performance appraisal to the financial aspect of importance is different, so for the actual financial performance appraisal work situation and effect, and the corresponding vary, the following is in the process of enterprise business management overview of financial performance appraisal status, as well as to the effective implementation of the role of the appraisal system of evaluation, In order to let people know more about the reality of business administration^[1].

(1) The current situation of financial performance appraisal in business administration

The reform of the social and economic system has gradually made finance become the mainstream industry of social development, penetrating into all aspects of people's production and life, promoting the reform of the system and affecting the development of the society. At present, under the common influence of many factors, financial performance appraisal has received people's common attention and has been developed and utilized step by step. But in the process of using, there are some problems, which restrict the smooth progress of business administration. For example, in the process of business

administration, the relevant enterprise staff lack a certain comprehensive management quality, so that, in the actual work, can not be good use of the business administration and financial management knowledge, to effectively deal with the problems. For example, the performance appraisal system is not perfect, and the evaluation method is relatively single, resulting in unclear assessment standards, unreasonable evaluation system and other situations, which make the performance appraisal work can not be smoothly carried out. The application of a single assessment method or method will limit or even hinder the enthusiasm of employees to participate in the work actively. The evaluation mechanism based on the assessment of professional ability is easy to ignore the comprehensive evaluation of the mental and physical strength of employees, while the evaluation results of the evaluation mechanism based on knowledge reserve are often lack of a certain scientific and reasonable. The fact that they cannot “exchange what they need” in practice is also the main factor that leads to the difficulty of performance appraisal.

(2) The effective role of financial performance appraisal in business administration

The rational formulation of assessment system and the establishment of effective assessment mechanism will play a role in promoting the smooth development of business administration. Mentioned the inspection way of single has a certain influence on management work, if can promote the formation of many for d evaluation mechanism, from the perspective of a variety of personnel evaluation, will be beneficial to employee attitude adjustment and, on the basis of work efficiency, promote the enterprise and staff grow up together, at the same time to improve enterprise’s core competitiveness, It is convenient for enterprises to discover various problems in management and make corresponding adjustments, and finally realize a virtuous circle of enterprise development^[2].

3. The Analysis of Financial Performance Appraisal Strategy in Business Administration

Facing the financial industry with complex environment, adopting corresponding and effective performance appraisal strategy is an important means to realize financial control and optimize the financial market. Some problems are easy to appear in the process of enterprise management, which can be effectively solved through the application of reasonable performance appraisal measures. Therefore, to realize the fairness and justice of performance appraisal in finance, and to realize the application of diversified evaluation standards, can effectively

improve the business management environment and provide strong support for business administration.

(1) Improve the ideological awareness of financial performance appraisal and correctly view the purpose of appraisal

In the process of business management, enterprises should improve the ideological consciousness of the leadership, clarify the standards and objectives of performance appraisal, and give full play to the role of performance appraisal on the basis of the recognition of employees, so that it can provide effective guarantee for the development of enterprises. Enterprises have the responsibility to let employees understand and know the objectives and standards of performance appraisal, and make reasonable explanations on the scientificity and feasibility of the appraisal content. At the same time, enterprises make strict requirements on relevant staff, prevent the occurrence of blindly following the trend, and fundamentally improve the performance of enterprises^[3].

At the same time of clarifying the purpose and standard, it is necessary to enhance the reflection consciousness of personnel, so as to achieve a relatively comprehensive performance evaluation. The rationality of the design of performance appraisal standards is based on the height of employees’ ideology. Only by realizing the participation of all employees can the value of performance appraisal be better reflected. Whole participation to work also can play the role of supervision, using appropriate methods, to reflect the performance of employees, let employees aware of their deficiencies, on the basis of active correct them, for the advantages of the employees at the same time, also can get praise and maintain effectively, promote the enterprise culture propaganda, promote the healthy development of the enterprise.

(2) Improve the assessment system and establish a scientific and reasonable assessment process

In order to make employees understand and support the purpose of assessment, the premise is to ensure the rationality of the assessment system and the scientific rigor of the assessment process. First, in terms of making reasonable appraisal system, the enterprise should be based on fair, fair and open, give full consideration to the reality, to a certain extent, the constraint of employee’s work behavior at the same time, to effectively encourage employees, make employees at work, at the same time feel the humanized management idea, increase the sense of belonging. The establishment and strict implementation of the assessment system provide system support for the personnel engaged in the assessment work and ensure

the fairness and justice of performance assessment ^[4].

Second, in the process of develop scientific appraisal process, attention should be paid to the rationality, the standardization, to ensure that it can play a role of supervision and control very well, avoid the staff's emotional impact assessment results, establish and improve the inspection process at the same time, combined with the actual situation of the employees, should be paid attention to collection staff effective proposals for the inspection work, constantly optimize the inspection mechanism and process, Let the performance appraisal carry on the better service for the employee and the enterprise. On this basis, mobilize the enthusiasm of employees to work, so as to create higher value for the enterprise, to achieve better development of the enterprise.

(3) To do a good job in assessment and evaluation, and take appropriate reward and punishment measures

On the basis of establishing and improving the assessment system and process, reasonable reward and punishment measures should also be taken to ensure that the performance assessment has higher management value and more effectively promote the common development and progress of employees and enterprises. For example, in the process of carrying out the assessment work and implementing the reward and punishment system. After the announcement of the assessment results, appropriate rewards will be given to the staff with outstanding performance in terms of ideology, working ability and knowledge reserve, so as to motivate the staff to work better. For employees with poor performance in all aspects, some punitive measures should be taken to make them understand the importance of work, urge them to strive for more outstanding performance in future work, catch up with advanced employees, speed up the process of

enterprise development, and make better income for the enterprise and promote the development of the enterprise from the aspect of personnel basis ^[5].

4. Conclusions

In a word, in the process of scientific and reasonable business management of enterprises, the implementation of effective performance appraisal system in the financial sector, to create a good financial environment for enterprises, is an important way to promote the benign development of enterprises. All enterprises should pay attention to this content, use modern management means and scientific evaluation mechanism, reasonably control the production and operation of enterprises, improve the competitiveness of enterprises, promote the healthy development of enterprises, and achieve the perfect integration of economic and social benefits.

References

- [1] Luo, W.J., 2017. Discussion on the Main Problems and Countermeasures of Business Management Performance Appraisal in Finance and Economics Industry. *China International Finance and Economics (Chinese and English)*. (14), 255-256.
- [2] Zhang, H.J., 2017. Construction of Industrial and Commercial Administration Accounting Assessment System Based on Performance Management. *Business Information*. (6), 182.
- [3] Cai, X.H., Huang, X., Huang, Y.T., et al., 2018. Research on performance appraisal system of commercial banks under the background of Internet finance. *China Business Theory*. (17), 43-45.
- [4] Chen, Y.H., Mei, H.Y., Zhao, Y.C., 2017. Analysis of Contradictions and Conflicts in Performance Appraisal of Financial Industry -- A Case Study of Shenzhen Huixiang Finance. *Silk Road Vision*. (24), 13.
- [5] Sun, H.T., 2018. On the Importance and Perfection of Performance Appraisal in Financial Enterprises. *Science and Technology Horizon*. (23), 278-279.

Discussion on the Intensive Construction of Double Assay Supervision in Coal Power Enterprises

Haiheng Wang Xiaodong Qin Jinwu Sun

SPIC Henan Electric Power Co., Ltd., Technical & Information Center, Zhengzhou, Henan, 450016, China

Abstract: In order to deal with the problems of double laboratory supervision in coal power enterprises, this paper tries to improve the supervision effect through the construction of centralized laboratory. The construction plan, supervision effect and economic benefit of centralized laboratory are also described.

Keywords: Coal power quality inspection; Double assay supervision; Intensive construction

DOI: 10.12346/ems.v4i1.6944

1. Introduction

Double test is an important way of fuel quality inspection and supervision^[1] in coal and electricity enterprises. At present, the power plant is mainly carried out through in-plant double testing, and the risk control of the laboratory factory testing link of incoming coal is realized through data comparison.

2. Current Situation Analysis

The coal quality inspection department shall sample, prepare samples, weigh and test the batches arriving at the factory every day, and send a number of samples separated in the final stage of sample preparation to the laboratory of power generation Operation Department for supervision test. The test results of both sides will be compared and analyzed by the Planning and Operation Department, and the test results shall be reported when the comparison difference is within the tolerance range.

3. Problems Exist

The supervision scope of double testing does not fully cover all the coal batches, and some units carry out double testing only on the market coal or spot check on the coal on the current day. For example, according to the company's system to carry out 10% of the spot check, the overall proportion of double testing did not reach 100%.

The test items are not fully covered. The comparison items of some companies contain key indexes such as calorific value and volatile fraction, and lack comparison of other indexes such as ash content and total sulfur.

The tolerance evaluation is more relaxed^[2]. For ex-

ample, the allowable ash difference is greater than the reproducibility critical difference specified by the national standard

The out-of-tolerance analysis is not thorough and the management is not closed loop^[3]. There is no detailed traceability analysis of the over-deviation, and the closed-loop management of double assay supervision is not fully realized.

Double laboratory failed to completely achieve information isolation, and information exchange offset double assay supervision effect.

4. Management Objectives

According to the current situation of double assay supervision and management, the objectives of double assay management were put forward, namely full coverage, back-to-back, feedback closed-loop and comprehensive evaluation.

5. Analysis of Causes

In terms of personnel, the failure to equip enough testing personnel in the dual laboratory is the main reason for the failure to achieve full coverage of supervision. The configuration of staff should adapt to the actual requirements of the dual laboratory service. The management personnel to perform double assay data comparison is not a full-time supervisor, but a planning financial personnel.

In the aspect of equipment, the management standards of the factory incoming coal laboratory and the furnace incoming coal laboratory carrying out double testing are not uniform, which is the main reason for the wide tolerance range.

In terms of sample management, the process of sample preparation and the treatment of special coal samples are also the reasons for the large tolerance. For example, the milling time in the flour making process, the heat preservation measures of difficult burning coal, lack of clear unified norms. At the same time, the information management of sample number lacks perfect and effective supervision mechanism.

In terms of mechanism design, dual assay work is carried out by multiple departments, but there is no coordination between departments. There is room for improvement in closed-loop feedback and quantitative evaluation.

In terms of environment configuration, the storage of hardware devices meets the requirements, but there is a lack of perfect environment monitoring program.

6. Program Planning

6.1 Post Setting

Personnel input is determined according to the workload, which includes detection work and management work. This paper only takes the detection work as an example for quantitative analysis, and the detection workload is quantified by working hours.

Laboratory work can be divided into business management, technical management, quality management and testing work.

Business management includes revenue business management such as project negotiation, contract signing and contract review, expenditure business management such as equipment, consumables and service procurement, as well as dispute settlement, supervision and audit in business management.

Technical management refers to the planning, execution, supervision and certificate storage of laboratory technology.

Quality management refers to all the support work to ensure the accuracy of test data and the reliability of instruments and equipment.

The test work can be divided into test operation, data statistical processing and test guarantee measures.

The test items can be divided into three categories according to the workload calculation method. Type A means that the total workload of this type of work is linearly proportional to the number of samples, which means that the doubling of sample quantity leads to the doubling of working hours. Type B means that the working time of this type has a basic value, on the basis of which the increase of sample quantity leads to the increase of working time Type C refers to the work type with fixed working

hours, which is not sensitive to changes in sample volume.

Testing operations include powder making, calorific value testing, industrial analysis testing and total sulfur testing. The duration of various operations is shown in Table 1. The estimated total working hours are calculated as 20 samples per day.

Table 1. Estimate of operating hours

Item	Type	handing time	Estimated average daily operating hours (h)(S=20)
powder process	A	$H(Q)=0.2SQ$	4
calorific value testing	A	$H(Q)=0.5SQ$	10
industrial analysis	B	$H(G)=3+0.15SG$	6
total sulfur testing	B	$H(S)=2+0.1SG$	4

According to this, it can be determined that the average daily operation positions are 4 or 5, which are responsible for daily manual testing and operation tasks. In addition, there are 3 full-time management personnel for business, technology and quality, and the responsibilities of equipment management, file management, training management and safety management are held by the above personnel. In summary, it is planned to set up 3 management posts and 7 testing posts.

6.2 Equipment Allocation

The equipment configuration is calculated according to the service time of the equipment. The service time of the equipment can refer to the manual operation hours of the above test items, which is calculated as the average daily working time of 8 hours, and the average daily testing quantity under the condition of full service time of 6 hours after the test guarantee measures and data processing are excluded for 2 hours, as shown in Table 2.

Table 2. Capacity information table

Item	Average daily detection volume	Estimate the equipment station
Sealed mill	30	2
calorimeter	12	4
industrial analyzer	20	2
Sulfur analyzer	40	2

In addition to the average sample quantity of 20 samples per day, the uneven distribution of sample quantity should be considered in the estimated number of equipment, that is, the maximum daily capacity should meet 30 samples per day. Second, all kinds of instruments and equipment should be equipped with more than one, in order to facilitate the quality control of equipment compar-

ison. Third, we need to consider other businesses besides the double assay business.

6.3 Environment Configuration

The environmental renovation work mainly depends on the technical requirements, equipment conditions and operation convenience of the test items.

For example, the calorimeter requires a stable ambient temperature and a northward orientation. Room layout can follow the sample testing process for sequential layout.

7. Implementation Effect

From February 2022 to August 2022, the monthly sample quantity increased from 227 samples to 743 samples, realizing the full coverage of the supervision of incoming coal batches. At the same time, the contrast between ash and total sulfur was increased.

Among them, a total of 47 exceedances were made, with an exceedance rate of 1.74%. All exceedance items were analyzed and rectified.

The power plant test results and the centralized test results are uploaded and compared automatically through the information management system of both sides to achieve information isolation and ensure the supervision effect.

Comprehensive evaluation was carried out according to the results of double assay comparison, and the quality inspection of each power plant was ranked.

8. Economic Benefits

Economic benefits can be divided into two parts: super-

vision benefits and intensification benefits. Unique assay can supervise the supervision revenue refers to the cases, there is no supervision in enterprise management losses, such as the supplier due to acceptance process uncertain conservative quotation, or mistrust of the testing data of the supplier business management cost, etc., after monitor input, which can effectively reduce the unsupervised losses, no loss and supervision in difference is the direct supervision of the proceeds. The benefit of intensification means that the capital investment of multiple distributed testing laboratories can be replaced by the construction of a centralized testing center, and the investment of multiple distributed laboratories can be replaced by the investment of one centralized laboratory, thus realizing resource optimization. In addition, the concentration effect is reflected in the extensibility of technology concentration and capital concentration, which is conducive to the training of talent team and the flexible expansion of testing business, with broad development potential.

References

- [1] Ma, L., 2017. Discussion on Coal Quality supervision and management of Incoming coal in thermal Power Plant. *Construction Engineering Technology and Design*. (24), 199.
DOI: <https://doi.org/10.3969/j.issn.2095-6630.2017.24.192>
- [2] Wei, B.J., 2017. Exploration of the sampling inspection of coal samples with large particle size in coal storage in thermal power plant. *China Standardization*. (12), 242-243. (in Chinese)
DOI: <https://doi.org/10.3969/j.issn.1002-5944.2017.12.147>
- [3] Gao, X.Zh., 2015. Difference analysis of coal burning double assay in thermal power plant. *Industry*. (25), 142.

Analysis of the Influence Factors of University Ecological Supermarket Construction under the Multi-log Multiple Regression Model

Yang Ge

Xiamen University Tan Kah Kee College, Fujian, 363105, China

Abstract: How to promote the benign development of ecological civilization construction is an important indicator to measure the degree of modernization of a region. Based on this, many regions adopt the ecological management model of innovative ecological supermarket. The survey found that there is little research on the construction of ecological supermarkets in universities. This paper will study the subjective influence factors of the construction of ecological supermarkets in universities through the multi-log multi-variate regression model from the three dimensions of subject characteristics, behavior habits and education guidance. The research results show that the independent variable of “ecological supermarket” is positively influenced by seniority, classification habits, consumption habits, supermarket attention, and the negative influence of monthly income (pocket money). Universities should strengthen the guidance of the participants and the rooted of ecological concept, and provide more higher education channels. Finally, we should adopt the way of “ecology + consumption”, and link business and ecology to realize the construction of ecological supermarkets in colleges and universities.

Keywords: University ecological supermarket; Ecological civilization construction; Multi-log and multiple regression model

DOI: 10.12346/ems.v4i1.6945

1. Background Review

The Resolution of the CPC Central Committee of November 11, 2021 on the Major Achievements and Historical Experience of the Party’s Struggle in the past 100 years pointed out that the importance and urgency of strengthening ecological and environmental protection should be fully recognized, and the importance of ecological progress in the overall development of the cause of the Party and the country should be clarified. With the continuous advancement of policies, all regions are still facing problems such as irregular ecological governance and incomplete ecological system. The means and form of subject and object governance effect is not ideal, and how to develop an innovative ecological governance mode has become a top priority. Various localities have launched a new governance mode of “ecological supermarket”. By giving traditional supermarkets with low-carbon functions such as recycling and recyclables, they can realize the organic combination of environmental governance and green consumption, and promote and practice the new social fashion of green environmental protection and solid waste recycling. For example, scholars Chen Shaojun

and others from the perspective of ecological compensation of Anhui Huangshan ecological beauty supermarket implementation and feasibility studied^[1], scholars Chen Anqi and others of Zhejiang Quzhou supermarket garbage exchange status satisfaction system discusses^[2], scholars Xu Jialiang and others through organizational ecology theory of the charity supermarket living space analyzed the^[3], scholars Chen Jingyi of O2O model ecological supermarket multiple value to realize the mechanism evolution process of^[4]. The above are similar to the innovative means and consumption to form the “ecological supermarket” system. However, the team has found that many of the above “ecological supermarkets” are mostly distributed in residential areas in urban and rural areas, while the number of “ecological supermarkets” in colleges and universities is relatively small. As the subject with strong adaptability to the introduction of new things, this attribute makes the development of ecological supermarkets in colleges and universities with better adjustment. In order to further create a green campus, low carbon campus, to explore the possibility of “ecological supermarket” in the construction of colleges and universities, the survey

through questionnaires, field interviews, try from the subject characteristics, behavior habits, education leads the three dimensions, and using multiple logarithmic multiple regression model of the feasibility of college “ecological supermarket”, with the influence of related factors to participants to reflect its rationality.

2. Theoretical Basis and Research Assumptions

Subject behavior is often composed of its subject characteristics. Through the basic perceptual structure of the ternary “motivation-behavior-event-event” framework, it can reflect its interactive influence^[5] on events. From the psychological point of view, the behavior habit will affect the subjective efficiency and the implementation path of the behavior subject, which has the plasticity and necessity^[6]. Consumer subjects will also be influenced by the degree of education guidance and produce different consumption mode^[7]. This study focuses on the university subject, based on the possibility of event realization, its final realization effectiveness may be influenced by the following factors:

H1-1: The higher the qualifications of the university participants, the higher their enthusiasm to participate in the construction;

H1-2: The older the university participants are, the more inclined they are to build an “ecological supermarket”;

H1-3: The more monthly income (pocket money) of university participants, the less likely they are to participate in green consumption;

H2-1: The better the daily environmental protection habits of the university participants, the more likely they are to agree with the construction of an “ecological supermarket”;

H2-2: The daily consumption habits of the participants are positively related to universities and the construction of “ecological supermarket”;

H3-1: The higher the school attaches to environmental protection, the greater the rationality of low-carbon campus construction;

H3-2: The more attention supermarkets attach to environmental protection, the more likely the rationality of low-carbon campus construction is.

3. Questionnaire Inquiry

3.1 Basic Characteristics of the Research

A total of 370 questionnaires were distributed in this survey, and relevant data were collected through the online university information sharing platform and offline field interview questionnaires. A total of 363 questionnaires were effectively recovered, with a recovery rate of 98.11%. The questionnaire was divided into four parts and set up 9 indicators. The first part is into the subject characteristics, mainly includes “education”, “age”, “monthly income (pocket money)” and other basic information. The second part is for the behavioral habits. It mainly includes “whether you will classify garbage”, “whether you will go to the supermarket for consumption” and other information. The third part is the leading part of education. It mainly includes “your university attaches great importance to ecological civilization construction”, “your university supermarket attaches great importance to ecological civilization construction” and other indicators. The fourth part is divided into the subject implementation validity analysis. It is divided into “whether you agree with the” ecological supermarket “this governance mode”, “your attitude towards the ecological supermarket”, “this mode implementation of the governance mode in universities” and other indicators. Based on this basis, this paper uses Eviews3.0 software to make statistics and make related analysis.

naires were effectively recovered, with a recovery rate of 98.11%. The questionnaire was divided into four parts and set up 9 indicators. The first part is into the subject characteristics, mainly includes “education”, “age”, “monthly income (pocket money)” and other basic information. The second part is for the behavioral habits. It mainly includes “whether you will classify garbage”, “whether you will go to the supermarket for consumption” and other information. The third part is the leading part of education. It mainly includes “your university attaches great importance to ecological civilization construction”, “your university supermarket attaches great importance to ecological civilization construction” and other indicators. The fourth part is divided into the subject implementation validity analysis. It is divided into “whether you agree with the” ecological supermarket “this governance mode”, “your attitude towards the ecological supermarket”, “this mode implementation of the governance mode in universities” and other indicators. Based on this basis, this paper uses Eviews3.0 software to make statistics and make related analysis.

3.2 Sample Description

At the age of 17~22, college students accounted for 80.44%, university education accounted for 78.24%, the group occupies a large proportion, shows that most of the respondents can understand the questionnaire content, and conform to the representative of social governance in universities, is the main actor of low-carbon campus construction, sample distribution is reasonable.

Table 1. Basic characteristics of the Table 1 sample

Variable	Option	Valid samples	Percent(%)
Sex	Male	167	46.01
	Female	196	53.99
	Primary school	18	4.96
Qualification	Junior middle school	18	4.96
	senior middle school	28	7.71
	College	284	78.24
	Graduate student or above	15	4.13
Age	Under 12	10	2.75
	12~16	36	9.92
	17~22	292	80.44
	Over 22	25	6.89
	Under 1500	96	26.45
Income	1500-2500	161	44.35
	2501-3500	71	19.56
	Over 3500	35	9.64

Note: Sample size: N=363

3.3 Variables

1) The dependent variable. In this study, the dependent variable was defined as the subject implementation validity, namely the behavior of university ecological participants (Subjectivity). Thus divided into objective perceived validity (Subjectivity 1) and subjective perceived validity (Subjectivity 2). By giving its four options “very agree”, “more agree”, “disagree”, “very disagree”, give “4 points”, “3 points”, “2 points”, “1 point” respectively. Subject implementation validity (Subjectivity) is the synthesis of objective perception validity (Subjectivity 1) assignment and subjective perception validity (Subjectivity 2) assignment. Thus, the behavioral index of determining the subject implementation validity was determined.

2) Independent variables. The independent variables of this study are divided into three parts, namely, subject characteristics, behavioral habits, and educational guidance. (1) Subject characteristics, defining “gender (Sex)”, “seniority (education stage) (Qualification)”, “age (Age)”, “monthly income (pocket money) (Income)” four indicators. Among, “Education” is divided into “primary school”, “junior high school”, “high school”, “university”, “graduate student and above” are respectively assigned to “1-5 points”. “Age” is divided into “under 12 years old”, “12-16 years old”, “17-22 years old” and “over 22 years old” are given “1-4 points” respectively. “Monthly income (pocket money)” is divided into “1500 yuan below”, “1500-2500 yuan”, “2501 yuan-3500 yuan”, “3500 yuan above” are given “1 point-4 points”; (2) Behavioral habit. Define “Will you classify garbage (Habit 1)”, “Will you go to the supermarket to consume (Habit 2)”, corresponding to “never”, “very few”, “occasionally”, “often” are respectively given “1-4 points”; (3) Education Lead. Define “the importance of your university to ecological civilization construction (Education 1)” and “the importance of your university supermarket to ecological civilization construction (Education 2)”, corresponding to the “not very much seriously”, “not too much seriously”, “more seriously”, “very seriously” four indicators were given “1-4 points”.

3.4 Model Construction

The data of this survey adopt regression analysis and multi-log analysis methods. First, the regression equation is Y_i (1), and then Equation (1) takes the logarithm to obtain Equation (2). Finally, the least squares rule (OLS) (3) is used to conduct the multiple regression analysis and introduce the multiple log model, and construct the multilog multiple regression model to obtain the Equation (4). According to this method, the influence of independ-

ent variable influencing factors on dependent variables is determined, and the correlation of ecological supermarket construction in universities is analyzed.

$$Y_i = \beta_0 + \beta_1 X_i + \mu_i \quad (1)$$

$$\ln Y_i = \beta_1 + \beta_2 \ln X_i + \mu_i \quad (2)$$

$$E(x) = \alpha_0 + \alpha_1 \varphi_1(x) + \alpha_2 \varphi_2(x) + \dots + \alpha_n \varphi_n(x) \quad (3)$$

$$\ln_{E(x)} = \ln \alpha_0 + \alpha_1 \ln_{\varphi_1(x)} + \alpha_2 \ln_{\varphi_2(x)} + \dots + \alpha_n \ln_{\varphi_n(x)} \quad (4)$$

In the (3) model, $E(x)$ is the dependent variable, $\varphi_n(x)$ represents the n th independent variable that may affect the behavioral validity of the university ecological participants, α_0 is the independent variable, $\alpha_1, \dots, \alpha_n$ is the regression coefficient corresponding to the independent variable; to improve the accuracy of the model, (4) the model shows the mutual relationship between the independent variable and the dependent variable in the logarithmic environment.

4. The Current Situation of University Subject Participation in Ecological Subject Behavior

Among the independent variable indicators selected in this paper, the survey shows that most university subjects have a certain participation in the construction of ecological civilization, which occupy a large proportion “occasionally”, while the participation of university subjects in consumption is very frequent, maintaining a “regular” which occupies a large proportion. However, school education and supermarket attention are involved to a certain extent, but they do not reach a higher level of internalization. It can be seen that the main body of colleges and universities only stays at a lower level of ecological civilization construction, and has a large space to be developed. Through the combination of ecology and consumption, a positive effect can be produced.

4.1 Subject Characteristics

According to the survey, most of the education levels are in “universities”, accounting for 78.24%, the age number is “17-22 years old”, and the monthly income level (pocket money) accounts for 26.45% of “below 1500 yuan”, 44.35% of “1500-2500 yuan”, 19.56% of “2501-3500 yuan”, and 9.64% of “more than 3500 yuan”. For the three hypotheses in H1, a specific validation will be performed based on this sample feature.

4.2 Habits of Behavior

According to the survey, Habit 1 said “whether you will classify garbage”, of which “often” accounted for 16.53%, “occasionally” accounted for 50.14%, “rarely” accounted for 30.58%, and “never” accounted for 2.75%. Although the main body of colleges and universities

Table 2. Investigation of university participants

Variable	Option	Valid samples	Percent(%)	Variable	Option	Valid samples	Percent(%)
Habit 1	Often	60	16.53	Education 2	Make much account of	92	25.34
	Occasionally	182	50.14		More attention	179	49.31
	Seldom	111	30.58		Attach little importance on	72	19.83
	Never	10	2.75		Very do not pay attention to	20	5.51
Habit 2	Often	120	33.06	Subjectivity 1	Strongly agree	162	44.63
	Occasionally	173	47.66		A little agree with	139	38.29
	Seldom	60	16.53		I don't agree	62	17.08
	Never	10	2.75		Very do not agree	0	0.00
Education 1	Make much account of	75	22.06	Subjectivity 2	Strongly agree	162	44.63
	More attention	190	55.88		A little agree with	129	35.54
	Attach little importance on	75	22.06		I don't agree	72	19.83
	Very do not pay attention to	0	0.00		Very do not agree	0	0.00

Note: Sample size: N=363

has some participation in garbage classification behavior, the frequency of participation is not high. The vast majority of college students mostly carry out occasional environmental protection behavior under unconscious or guidance. This may be due to the lack of stable intermediary in the process of conveying ecological protection knowledge in universities and the insufficient guidance of the behavior of participants. Habit 2 “Will you go to the supermarket for consumption”, “often” accounted for 33.06%, “occasionally” 47.66%, “rarely” 16.53%, and “never” 2.75%. It can be seen that compared with the Habit 2 garbage classification behavior, the consumption behavior of the university subjects is more universal and routine, and the frequency of participation is significantly higher than that of the garbage classification behavior. Total 80.72% of the university subjects are more frequent consuming behavior. The reason may be that consumption is a daily and qualitative habit, and it is related to the quality of its individual life and psychological harmony, so that consumption will inevitably occur in a certain period of time. For this, the two assumptions in H2 will be specifically verified based on this sample feature.

4.3 Educational Guidance

According to the survey, Education 1 “your attention to the construction of ecological civilization”, the “very seriously” accounted for 22.06%, “more” accounted for 55.88%, “not” accounted for 22.06%, “not” survey sample most universities subject that is unreasonable, most

schools in ecological civilization construction have certain in, have certain lead, but transmission and content is limited, and not through the education of education teaching outline, internalized in heart, externalized in line. And Education 2 “your university supermarket attaches great importance to ecological civilization construction”, among which “more attention” accounted for 25.34%, “more attention” accounted for 49.31%, “less attention” accounted for 19.83%, “very little attention” accounted for 5.51%. Thus, on the whole supermarket attention to the construction of ecological civilization degree is slightly lower than the school, have very do not value the supermarket group, may be because the supermarket has profit nature, and for ecological environment protection such redundant “marginal cost” behavior has exclusion, and lower the school, and schools have certain positive guiding effect, it also strengthens the school lead on the ecological concept. Here, the two hypotheses in H3, will be specifically validated based on this sample feature.

5. Analysis of Influencing Factors of Main Actors in Universities

Based on the 363 samples collected by the survey, we will set up seven indicators “qualifications (Qualification)”, “age (Age)”, “income (Income)”, “will you will garbage classification (Habit 1)”, “your college supermarket attention to the construction of ecological civilization (Habit 2)”, “your attention to the construction of ecologi-

cal civilization (Education 1)”, “your college supermarket attention to the construction of ecological civilization (Education 2)” regression analysis. The following results are obtained.

Table 3. Results of the relevant index regression analysis

Variable	Coefficient	t-Statistic	Prob.
Log(c)	0.312	0.772	
Log(Qualification)	0.234	3.422	**
Log(Age)	0.215	1.898	
Log(Income)	-0.24	-2.414	**
Log(Habit 1)	0.2	3.213	**
Log(Habit 2)	0.17	2.615	**
Log(Education 1)	0.56	6.319	**
Log(Education 2)	0.29	5.133	**

Note: * * and * are significant at the statistical levels of 1% and 5%, respectively.

$R^2=0.114$, and the adjusted $R^2=0.096$

5.1 Correlation Analysis of Subject Characteristic Variables on Independent Variables

Survey results show that (Table 3), the subject of academic correlation coefficient of 0.234, the significance level of 0.0007, that the subject of college degree of “ecological supermarket construction will” has a positive impact relationship, influence fit higher, and conform to H1-1: the higher the qualifications of the subject, the higher the enthusiasm of the hypothesis. However, the correlation coefficient of the age of university subjects was 0.215, and the significance level was 0.0584, indicating that the age of university subjects has a positive impact on the “willingness of ecological supermarket construction”, but the fit is low.

It is not significant, so in the enthusiasm influence factor of participating in the construction, the age of the university subject does not affect the participation behavior of the university subject. For the hypothesis of H1-2, it can not be verified. The main body of the monthly income (pocket money) correlation coefficient of 0.24, significance level of 0.0000, the main body of the monthly income level of “ecological supermarket construction will” has a negative impact, and influence fit is higher, meet H1-3: the more monthly income (pocket money), the smaller the possibility of participating in green consumption hypothesis.

5.2 Correlation Analysis of Behavioral and Habit Characteristic Variables on Independent Variables

1) The subject’s garbage classification habits

The significance of the willingness and behavior of the

participants will be affected by the cognition, individual characteristics, and promotion measures under the garbage classification mechanism^[8]. Survey results show that (Table 3), the university participant Habit 1 “will you do garbage classification” correlation coefficient of 0.2, significance level is 0.0014, visible subject ecological supermarket construction behavior will be significantly affected by the garbage classification habits, verify the hypothesis of H2-1: the better the daily environmental habit, the better the possibility of the approval of “ecological supermarket” construction.

2) The consumption behavior and habits of the subject

According to the survey results, university participants Habit 2 “will you go to the supermarket for consumption” correlation coefficient is 0.17, significance level is 0.0093, the main ecological supermarket construction behavior and subject consumption behavior habits has a significant positive relationship, verified the H2-2 hypothesis: universities participants in daily consumption habits and “ecological supermarket” construction has a positive relationship.

To sum up, it can be known that the garbage classification habit and the consumption behavior habit have a positive relationship on the construction behavior of ecological supermarket in universities. From the above behavior habits, the frequency of consumption behavior is significantly greater than the garbage classification. Universities participants in consumption behavior has higher possibility, if the introduction of “ecological supermarket” mechanism, ecological environmental protection behavior with the combination of consumption behavior, produce linkage effect, consumption behavior frequency will drive garbage classification habit frequency, form a virtuous cycle, so strengthen the main participation enthusiasm, more effective construction of low carbon university, green campus, form the “university ecological supermarket” system of benign interaction.

5.3 Relevant Analysis of Independent Variables by the Characteristics of Educational Leading Variables

1) School-level education guidance

Strengthening the campus ecological civilization education has an important role in promoting the construction of ecological civilization, and in colleges and universities, especially college students, they are the main object of ecological civilization education^[9]. According to the survey results, the university main body Education 1 “your emphasis on the construction of ecological civilization” correlation coefficient is 0.56, the significance level of 0.0000, visible subject ecological supermarket construc-

tion behavior and colleges to the importance of ecological civilization construction of degree has significant positive correlation, verified the hypothesis of H3-1: the higher the importance of the school to environmental protection, the greater the rationality of low carbon campus construction.

2) Behavior orientation at the supermarket level

According to the survey results, the university main body Education 2 “your university supermarket on the importance of ecological civilization construction” correlation coefficient is 0.29, significance level of 0.0000, visible subject ecological supermarket construction behavior and university supermarket emphasis on ecological civilization construction has significant positive correlation, verify the hypothesis of H3-2 is the higher the supermarket for the importance of environmental protection, the greater the rationality of low carbon campus construction.

6. Conclusions and Suggestions

In summary, Under the analysis of a multi-log multiple regression model, In the university subject of “ecological supermarket” construction behavior = $0.312 + 0.234 * \text{qualification (Qualification)} - 0.24 * \text{income (Income)} + 0.2 * \text{will you conduct garbage classification (Habit 1)} + 0.17 * \text{will you go to the supermarket for consumption (Habit2)} + 0.56 * \text{your university to ecological civilization construction attention (Education 1)} + 0.29 * \text{your university supermarket to ecological civilization construction attention (Education 2)}$, That is, while controlling for other factors, the qualifications (academic background) of the university participants will be increased by 0.234 units. Average monthly income (pocket money) increased by one unit. Its “ecological supermarket” construction behavior will be reduced by 0.24 units. Whether their individual will do the habit of garbage sorting for each additional unit, its “ecological supermarket” construction behavior will increase by 0.2 units. Whether the individual has the habit of consumption of each additional unit, its “ecological supermarket” construction behavior will increase by 0.17 units. Universities’ attention to the construction of ecological civilization will significantly increase by 0.56 units of “ecological supermarket” construction behavior. And the importance of ecological civilization construction of university supermarkets will increase by 0.29 units of “ecological supermarket” construction behavior. In short, the independent variable of “ecological supermarket” construction behavior is positively affected by qualifications, classification habits, consumption habits, supermarket attention, and university attention; and negatively affected by the monthly income

(pocket money).

This paper analyzes the influencing factors of the university subject participating in the construction of “ecological supermarket” through the survey data. From the perspective of the research results, the overall enthusiasm of colleges and universities to participate in the construction of “ecological supermarket” is relatively low, and the overall guidance is insufficient, and the development of their subject consciousness is still immature. This paper draws the following enlightenment: First of all, on the whole, we should strengthen the education guidance, especially the importance of colleges and universities to the construction of ecological civilization, with colleges and universities to lead the participation of the main body. The survey results show that the construction behavior of “ecological supermarket” is the most influenced by the guidance of universities. Therefore, the primary condition of the construction of ecological supermarket is the education construction of the university itself. By taking the concept of “ecological” in the classroom and implementing the course construction, the students can promote the “ecological supermarket” and change from the potential behavior to the subjective behavior; secondly, the qualifications and income of universities will have certain influence on the construction of “ecological supermarket”. Therefore, when the education level of colleges and universities should be strengthened, it should provide higher education channels for more students, stimulate the enthusiasm of colleges and universities to participate in ecological construction, and subtly change the overall quality. In the monthly income level (pocket money) of college students, thrift should be advocated to avoid carrying a lot of currency on campus, which can not only reduce the phenomenon of blind consumption and fraud crisis in the face of the Internet, but also effectively reduce the unecological behavior caused by income. Finally, starting from the behavior habits, the research results show that the overall awareness of garbage classification is low, while the consumption behavior has a high frequency. Through the way of “consumption + ecology”, creating the linkage mode under the ecological supermarket and driving the ecology with commerce can promote the environmental awareness of the university groups and strengthen the participation of the main body of ecological civilization construction.

References

- [1] Chen, Sh.J., Zhu, Ch.M., 2020. Takes the operation practice of ecological beauty supermarket in S County, Huangshan City, Anhui Province as an example. Learning Forum. (02), 71-78.

-
- [2] Chen, A.Q., Zhu, H.H., 2019. Investigation on the status quo and satisfaction of Quzhou garbage exchange supermarkets. *Modern Marketing (Information version)*. (11), 222-224.
- [3] Xu, J.L., Peng, L., 2019. Operation strategy, population relationship and ecological niche: a new framework of charity supermarket living space. *Administrative Administration of China*. (11), 104-110.
- [4] Chen, J.Y., 2021. Research on the Realization Mechanism of Multi-value Co-creation in the retail Industry under the O2O business ecosystem —— takes Yonghui Supermarket as an example. *Journal of The University of Science and Technology Beijing (Social Science edition)*. 37(01), 74-83.
- [5] Tang, B., Zhao, G.H., 2012. Analysis of Subject Characteristics and Impact of Network Mass Events in China. *Intelligence Journal*. 31(05), 46-49 + 89.
- [6] Liu, R.Q., 2017. Research on the Development of Positive Psychology. Xi'an Polytechnic University.
- [7] Zhang, X.M., He, Y.N., 2006. Study on the Impact of Education on Household Consumption. *Education and Economics*. (03), 1-5.
- [8] Chen, Sh.J., Li, R.Ch., Ma, Y.B., 2015. The contradiction between will and behavior: Research on household garbage classification mechanism for Urban Residents. *China's Population Resources and Environment*. 25(09), 168-176.
- [9] Liu, J.W., 2008. The Necessity and Countermeasures for College Students in Ecological Civilization Education. *Educational Exploration*. (06), 17-18.

Influence of RCEP Signing on China's Cross-border E-commerce and Countermeasures

Rong Zhao

School of Economics and Management, North University of China, Taiyuan, Shanxi, 030051, China

Abstract: The signing of RCEP marks the official launch of the world's largest free trade area so far, which means the emergence of a large integrated market. Starting from the current situation of China's cross-border e-commerce, this paper analyzes the impact of RCEP signing on China's cross-border e-commerce from two aspects of opportunities and challenges, and puts forward corresponding countermeasures.

Keywords: RCEP; China's cross-border e-commerce; Trade digitization

DOI: 10.12346/ems.v4i1.6946

1. Introduction

As the largest cross-border e-commerce market in the world, China has the largest B2C sales volume and its proportion in retail sales among RCEP member countries. With the signing and entry into force of the RCEP agreement, the e-commerce ecology among member states will be further improved, so that their cross-border e-commerce trade activities will have a legal basis and be more secure and convenient, thus laying a solid foundation for the healthy and sustainable development of China's cross-border e-commerce. At the same time, the RECP will bring more development opportunities to China's cross-border e-commerce. Many of China's foreign trade companies will benefit from the agreement, which takes effect on Jan. 1, 2022. However, with the rapid development of cross-border e-commerce, many problems will arise. Therefore, in order to adapt to the economic and social development, it is more urgent to make good use of RCEP to help the development of China's cross-border e-commerce. Based on the current situation of cross-border e-commerce, this paper analyzes the impact of China's cross-border e-commerce through RCEP. Then put forward the corresponding countermeasures to realize the long-term development of China's cross-border e-commerce.

2. The Current Situation of Cross-border E-commerce in China

According to customs statistics, the import and export scale of China's cross-border e-commerce in 2021 is 1.98 trillion yuan, up 15%, showing a booming trend, of which the export is 1.44 trillion yuan, up 24.5%. According to

preliminary customs statistics, in the first quarter of 2022, China's cross-border e-commerce imports and exports reached 434.5 billion yuan, up 0.5% year on year, of which exports reached 310.4 billion yuan, up 2.6%. Imports were 124.1 billion yuan, down 4.2 percent.

New forms and models of business, such as cross-border e-commerce and market procurement, are an important force promoting China's foreign trade and a new trend in the development of international trade. In the second half of 2021, China Customs will officially copy and promote the cross-border e-commerce B2B export supervision pilot, and gradually improve the relevant policies. At the same time, the "Shanghai Cooperation Demonstration Zone - Minsk", "Yixin-Europe", "Su-Xin-Europe", Hefei to Hamburg, Wilhelmshavn, Germany and other cross-border e-commerce special trains have been launched, integrating the "China-Europe freight train" into the cross-border e-commerce model.

3. Impact of the Signing of RCEP on China's Cross-border E-commerce

3.1 Opportunities Brought by the Signing of RCEP

3.1.1 Tariff Reduction is Conducive to Improving the Competitiveness of Export Commodities

The tariff reduction measures in the RCEP agreement will benefit China's cross-border e-commerce enterprises, especially export enterprises. Tariff reduction and exemption will reduce the tax cost of Chinese cross-border e-commerce enterprises' exported commodities in the importing country, thereby ensuring that users in foreign markets can obtain more favorable prices and improving the market competitiveness of exported commodities^[1].

3.1.2 Trade Standardization is Conducive to Weakening Trade Barriers

With the unification of regional rules and clauses in RCEP, unified rules of origin, customs procedures, technical standards and other rules have been issued successively, and trade rules in the region have been gradually standardized and unified, and the integration of trade standards in the market has greatly weakened trade barriers. The improvement of the trade facilitation level of RCEP member countries can significantly promote the release of China's trade export potential, thus bringing broader space for the growth of China's cross-border e-commerce^[2].

3.1.3 Free Flow of Production Factors is Conducive to the Construction and Operation of Overseas Warehouses

After RCEP is signed, national resources, commodity flow, technical cooperation and talent cooperation among member states will be more convenient, which is conducive to value creation and resource integration, and further promote regional economic integration. This will bring great opportunities for Chinese cross-border e-commerce companies to establish and operate overseas warehouses, explore East Asian markets, and attract international talent. Accelerate the integration of commodity flow, technical cooperation, service capital and talent exchange, and lay a foundation for the rapid development of cross-border e-commerce in China^[3].

3.1.4 Promoting Trade Digitalization and Facilitating the Transformation and Upgrading of China's Cross-border E-commerce Enterprises

RCEP includes a series of rules to promote trade digitalization and reduce information communication costs, such as vigorously promoting paperless trade, submitting trade management documents in electronic form, recognizing that electronic documents have the same legal effect as paper documents. This promotes the process of trade facilitation to the greatest extent. The higher the degree of trade facilitation, the better the external economic environment, and plays a more positive role in helping the transformation and upgrading of China's cross-border e-commerce enterprises^[4].

3.1.5 Simplifying Customs Procedures and Improving the Efficiency of Cross-border E-commerce Logistics

RCEP logistics policy adopts efficient management such as pre-adjudicative, pre-arrival processing and information technology application, and finally simplifies the customs clearance process. The simplification of customs procedures will improve the user experience of China's cross-border e-commerce and reduce export costs, there-

by increasing the volume of import and export trade.

3.2 Challenges to China's Cross-border E-commerce due to RCEP Signature

3.2.1 Differences among Member Countries May Lead to Infringement

The RCEP intellectual property Chapter not only covers traditional intellectual property works, patents, trademarks and other contents, but also reflects the new issues of intellectual property protection and development. Under the complex framework of RCEP, we should pay more attention to how to protect our own intellectual property rights and how not to infringe on others' intellectual property rights in the face of differentiation.

3.2.2 Complicated Trade Environment Leads to Increased Difficulty of Customs Supervision

Under the framework of RCEP, with the liberalization of trade, there will be an increasing number of large cross-border companies doing both import and export. Customs supervision needs to deal with more complex trade environment, which increases the difficulty of customs supervision.

3.2.3 Increasing Demand for Goods Triggers Logistics crisis

With the removal of trade barriers, demand for goods will increase significantly, and the core of cross-border e-commerce includes products, logistics and services. And products and services and logistics are inseparable. Therefore, the development of supporting industries, especially the surging logistics demand, is the main factor restricting the development of e-commerce.

3.2.4 Trade Frictions Caused by the Popularization of Dividend Policy

China's cross-border e-commerce will face fierce competition among RCEP members. For example, ASEAN, Japan, the ROK and other member countries can directly benefit from the RCEP's preferential policies. Some middle and high-end industries in China will also encounter the impact of products from Japan and South Korea, and some competitive industries will also face fierce competition from ASEAN.

4 Countermeasures of China's Cross-border E-commerce to Cope with the Impact

4.1 Establishing the Concept of Intellectual Property Protection

Before starting import and export business, export sellers of China's cross-border e-commerce should familiarize themselves with the intellectual property rules of the RCEP target market, make risk estimation and formulate

corresponding preventive measures. For cross-border e-commerce enterprises with independent innovation, they must have a corresponding understanding of the intellectual property system of the exporting countries in advance. If they find the possibility of infringement, they should avoid handling the patented technology and trademark design to protect their legitimate rights and interests to the maximum. In order to protect their legal intellectual property rights, enterprises can apply for intellectual property rights in the target market and file with the Chinese customs to realize border protection of intellectual property rights.

4.2 To Innovate the Customs Supervision Mode

In the complex trade environment, China Customs must make full use of big data, artificial intelligence, cloud computing, Internet of things, 5G and other new technologies, and according to its own development level and actual needs, realize the automation and intelligence of the supervision and management process, so as to further improve the internal operation efficiency. At the same time, through information sharing, risk prevention, and mutual assistance in law enforcement, we will innovate the concept of border supervision, equip it with smart hardware and software facilities, and jointly build a new landscape for border governance. Finally, smart technology and innovative methods will be used to coordinate customs of various countries to establish connectivity and real-time cooperation relations, so as to provide services for the security and convenience of global trade.

4.3 Speeding up the Connectivity of Logistics Facilities

China's transport authorities shall, according to the actual market demand for capacity, increase the number of transport lines, and maintain the smooth flow of cross-border logistics supply chain by increasing capacity and container input, improving transport efficiency and strengthening digital construction. Second, we support and encourage liner companies to increase capacity investment, open more international container routes, and optimize the route network layout. Finally, accelerate the construction of the international logistics channel, support the buddy freight train, build an important channel to serve the domestic and international double circulation, in order to solve the problem of large demand for freight.

4.4 Strengthen the Implementation of Industrial Policies

Under the new situation of RCEP taking effect, make full use of China's advantages of comprehensive industrial categories and strong comprehensive supporting capacity, accelerate the transformation and upgrading of traditional industries and foster and develop emerging

industries, actively introduce advanced equipment from Japan and South Korea, and boost industrial upgrading. At the same time, advantageous industries are encouraged to establish production bases in Southeast Asia, expand overseas markets, promote the transformation and upgrading of traditional advantageous industries into medium and high-end industries, strive to improve quality standards, and push Chinese manufacturing to a new height^[5].

4.5 Policy Support for the Development of Cross-border E-commerce

The recent relevant policies and measures will promote the development of China's cross-border e-commerce from different perspectives. Cross-border e-commerce also ushered in important strategic opportunities during the 14th Five-Year Plan period. The 14th Five-Year Plan for Business Development clearly proposes the goal of promoting innovative development of foreign trade, specific measures for the development of cross-border e-commerce, specific actions for the construction of rules and standards, and special actions for the development of high-quality overseas warehouses^[6].

5. Conclusions

To sum up, China's cross-border e-commerce should make good use of the policy dividend of RCEP, continuously promote the transformation and upgrading of China's cross-border e-commerce, strive to extend the regional cross-border e-commerce supply chain, increase the added value of products, optimize the allocation of resources, carry out differential competition based on its own advantages, and form its own unique competitiveness.

To its negative influence, at the same time to "suit the remedy to the case", from their own to find problems, considering the national differences in the levels of e-commerce development, make full use of the RCEP the signing of the agreement, to reduce the bilateral and plurilateral trade and investment barriers, building to promote the international domestic circulation circulation, the international circulation to stimulate the domestic circulation of the binary pattern^[7].

References

- [1] Xu, Y., 2022. Opportunities, Foundations and paths of China's economic and trade transformation and upgrading under the background of RCEP. *Journal of Jinan Municipal Party School*. (01), 21-24.
- [2] Zhu, W.P., 2022. Empirical analysis on the impact of trade facilitation on trade export potential: based on China's export samples to RCEP member countries. *Journal of Business Economics*. (06),

156-159.

- [3] Xu, X.Ch., Dai, M.F., 2022. Research on the development of cross-border e-commerce in China under the impact of COVID-19. *International Trade*. (02), 32-38.
- [4] Yang, H.Y., Yang, H.J., Fu, J.H., 2022. How does digital trade affect GVC progression?-- Based on the empirical evidence of countries within the framework of RCEP. *International Economic Cooperation*. (02), 76-87.
- [5] Xu, Y., 2022. Opportunity, basis and path of economic and trade transformation and upgrading in China under the background of RCEP. *Journal of Jinan Party School*. (01), 21-24.
- [6] Lan, Q.X., Tong, J.Ch., 2022. Research on Sustainable development of China's new Business model and new model of foreign trade. *International Economic Cooperation*. (02), 50-57.
- [7] Chen, Y., 2022. Competitive and Complementary Analysis of China's Mechanical and electrical Products among other RCEP Members. *Foreign Trade and Economic Cooperation*. (03), 27-30.

Introduction and Manuscript Scope of the Economics and Management Science

Journal overview:

English title: *Economics and Management Science*

Publication cycle: Quarterly

Manuscript issue date: 1st issue of 2022

Publisher Name: Singapore Encyclopedic Publishing PTE.LTD

Author's rights:

- The journal is an OA journal, but the author owns the copyright of the article;
- Published articles can be shared, reused and archived free of charge;
- With open access as a guideline, this journal will become a highly influential international journal;
- Providing the author with an immediate review service, that is, completing the review process in the shortest time while ensuring the best quality of the text.

Article type:

Types	Content
Editorial	An opinion article on a paper or topic
Original paper	Covers all original research papers on relevant theories and practices in the field of economic management
Review articles	A review paper that provides the latest research process or results for further research in economic management
Opinion paper	Criticize and resolve existing and unresolved issues in the field of economic management
Letter	Letter to the editor or a valuable reply from the author, etc.

Publishing format requirements:


- Manuscript format: Microsoft Word
- Manuscript length: at least 4000 words
- Language: English
- Measurement unit: International unit
- Paper publishing format: Adobe PDF
- References: Vancouver style

Review process:

According to the scope of the journal, the editorial department and the editor-in-chief organize expert reviewers in the same field in the editorial team to review the manuscripts, and select professional high-quality manuscripts for editing, proofreading, typesetting, and publication, and it provides efficient, fast, and professional publishing platform.



ENCYCLOPAEDIC PUBLISHING PTE.LTD.

 21 Serangoon North Avenue 5, #03-03 Ban Teck Han Building,
Singapore (554864)

 <http://encyclopub.com>

 encyclopaedic@outlook.com

